



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,943	06/28/2001	Manish S. Prabhu	MS174301.1	6299
27195	7590	12/13/2005	EXAMINER	
AMIN & TUROCY, LLP 24TH FLOOR, NATIONAL CITY CENTER 1900 EAST NINTH STREET CLEVELAND, OH 44114			HO, ANDY	
			ART UNIT	PAPER NUMBER
			2194	

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/893,943	Applicant(s) PRABHU ET AL.	
	Examiner Andy Ho	Art Unit 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7,9-14,16-19,21-36,38,39,41-44 and 47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,9-14,16-19,21-36,38,39,41-44 and 47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed 9/21/2005.
2. Claims 1-5, 7, 9-14, 16-19, 21-36, 38-39, 41-44 and 47 have been examined and are pending in the application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 7, 9-14, 16-19, 21-29, 31-36, 41-42, 44 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foley U.S Patent No. 6,487,590 in view of Waldo U.S Patent No. 6,449,648 and Bainbridge U.S Patent No. 6,014,700.

As to claim 1, Foley teaches a system comprising:

a remote object decorated with customized attributes (attributes associated with the network element, lines 38-45 column 1), acquiring metadata (polling for attributes associated with the network element if the client requests the monitoring of the network element, changes in attributes are reported when the client requests notification of changes in attributes, lines 38-45 column 1),

a remote object manipulator (an object oriented program running at the remote work station, lines 31-32 column 10) operable to manipulate a remote object (to control

Art Unit: 2194

an object associated with the network element, lines 32-33 column 10; client perform commands to request various maintenance operations on the network element 38, lines 29-31 column 3).

Foley does not explicitly teach a separated remote object monitor and a lifetime manager. However, the object oriented program running at the client remote work station also performs the function of monitoring the remote object (polling for attributes associated with the network element if the client requests the monitoring of the network element, changes in attributes are reported when the client requests notification of changes in attributes, lines 38-45 column 1) and controlling the lifetime of the remote object (object status information is reported, lines 26-29 column 5; client perform commands to request various maintenance operations on the network element 38, lines 29-31 column 3). Therefore one of ordinary skill in the art would conclude that the object oriented program running at the client remote workstation is also the remote object monitor and the lifetime manager operates to monitor and control the operations as well as the lifetime of the remote object.

Foley further does not explicitly teach acquiring data to image the remote object as a proxy object, the metadata comprising a class hierarchy including a subclassable object reference base class, the proxy object intercepting client calls on the remote object and facilitating activating a custom attribute based process, and a lease.

Bainbridge teaches a client/server object oriented programming system (object-oriented client/server computing environment, line 32 column 3) wherein data from a remote object are acquired to image the remote object as a proxy object (forming a

Art Unit: 2194

proxy object, lines 1-16 column 4), the metadata comprising a class hierarchy including a subclassable object reference base class (...forming an extended object reference based on said request, said extended object reference having, in addition to a server address field and an object key field, at least one additional field..., lines 38-41 column 3; lines 43-64 column 5), the proxy object intercepting client calls on the remote object and facilitating activating a custom attribute based process (...when first application program 40 wishes to make a remote procedure call to request that work be done by a server, it sends a message to the proxy object 41 informing the proxy object of what work it wants done by a server. Proxy object 41, in conjunction with ORB 42, forms an object reference..., line 65 column 5 to line 3 column 6). It would have been obvious to apply the teachings of Bainbridge to the system of Foley because by using a proxy object, the system could process the request directly by the specified server as disclosed by Bainbridge (lines 1-16 column 4).

Waldo teaches a system of resource management wherein a lifetime manager (lease manager, line 14 column 6) is used to control the lifetime of an object (resource, line 8 column 5) and employs a lease to determine a lifetime of the remote object, the lease comprising an initial lease period (specifying a requested lease period, lines 8-9 column 5). It would have been obvious to apply the teachings of Waldo to the system of Foley because by employing a lease on the resource, the system would have control over the access to the resource as disclosed by Waldo (line 55 column 4 to line 20 column 5).

As to claim 2, Foley as modified further teaches the remote object monitor provide a human readable reference (web browser 30 including the HTML 35 and applet 32, Fig. 1) to the remote object.

As to claim 3, Foley as modified further teaches the human readable reference to a remote object codes comprising protocol information (HTML 35, Fig. 1).

As to claim 4, Foley as modified further teaches the human readable reference to a remote object is a URL (HTML 35, Fig. 1).

As to claim 5, Foley as modified further teaches the protocol information is HTTP (HTML 35, Fig. 1).

As to claim 7, Foley as modified further teaches the metadata comprises information concerning attributes implemented by a remote object (attributes associated with the network element, lines 38-45 column 1).

As to claim 9, Foley as modified further teaches the custom attribute based activated process is performed before non-attribute code (viewConfig, lines 41-46 column 5).

As to claim 10, Foley as modified further teaches the custom attribute based activated process is performed in parallel with non-attribute code (notifyConfig, lines 47-53 column 5).

As to claim 11, Foley as modified further teaches the custom attribute based activated process is performed after non-attribute code (cancelNotify, lines 54-57 column 5).

As to claim 12, it is a system claim of claims 9-11. Therefore, it is rejected for the same reasons as claims 9-11 above.

As to claim 13, Foley as modified further teaches the remote object monitor and the lifetime manager are implemented within a single component (an object oriented program running at the remote work station, lines 31-32 column 10).

As to claim 14, Foley as modified further teaches the lifetime manager employs a lease manager (application-specific service object, lines 9-10 column 5) to monitor the lifetime of the remote object. Foley does not explicitly teach a lease renewal. Waldo teaches a renewal on access time (a new lease period, 17-20 column 5). Note the discussion of claim 1 above for the reason of combining references.

As to claim 16, Foley as modified further teaches the remote object manipulator update metadata (startUpdate, lines 16-25 column 6) associated with a remote object.

As to claims 17-19, they are system claims of claims 7 and 13-14, respectively. Therefore, they are rejected for the same reasons as claims 7 and 13-14 above.

As to claim 21, it is a computer readable medium claim of claim 1. Therefore, it is rejected for the same reasons as claim 1 above.

As to claim 22, it is a system claim of claims 1-2, 8 and 13. Therefore, it is rejected for the same reasons as claims 1-2, 8 and 13 above. Foley as modified does not explicitly teach an object reference extender. Bainbridge teaches a client/server object oriented programming system (object-oriented client/server computing environment, line 32 column 3) wherein an object reference extender extend an object reference class subclassed from a base class object reference class (forming an

extended object reference based on said request, said extended object reference having, in addition to a server address field and an object key field, at least one additional field, lines 38-41 column 3; lines 43-64 column 5). It would have been obvious to apply the teachings of Bainbridge to the system of Foley because by extending the object reference, a client request can be serviced directly by the specified server without going through a routing server as disclosed by Bainbridge (lines 56-64 column 5).

As to claims 23-24, they are system claims of claims 3 and 5, respectively. Therefore, they are rejected for the same reasons as claims 3 and 5 above.

As to claim 25, Bainbridge further teaches the object reference extender overrides a field (overriding fields 313a and 314a to 313b and 314b, Fig. 3A and 3B; lines 22-53 column 6).

As to claim 26, Bainbridge further teaches the object reference extender adds a field (additional field, lines 40-41 column 3).

As to claims 27-28, they are system claims of claims 12 and 14, respectively. Therefore, they are rejected for the same reasons as claims 12 and 14 above.

As to claim 29, it is a system claim of claims 13-14. Therefore, it is rejected for the same reasons as claims 13-14 above.

As to claim 31, it is a computer readable medium claim of claim 22. Therefore, it is rejected for the same reasons as claim 22 above.

As to claim 32, it is a method claim of claim 22. Therefore, it is rejected for the same reasons as claim 22 above.

As to claim 33, it is a method claim of claims 3-4. Therefore, it is rejected for the same reasons as claims 3-4 above.

As to claim 34, it is a method claim of claims 25-26. Therefore, it is rejected for the same reasons as claims 25-26 above.

As to claim 35, it is a method claim of claims 25-26. Therefore, it is rejected for the same reasons as claims 25-26 above.

As to claim 36, it is a method claim of claim 25. Therefore, it is rejected for the same reasons as claim 25 above.

As to claim 41, it is a method claim of claims 32, 35, 37 and 40. Therefore, it is rejected for the same reasons as claims 32, 35, 37 and 40 above.

As to claim 42, it is a computer readable medium claim of claims 32, 35, 37 and 40. Therefore, it is rejected for the same reasons as claims 32, 35, 37 and 40 above.

As to claim 44, it is a computer program product claim of claim 41. Therefore, it is rejected for the same reasons as claim 41 above.

As to claim 47, it is a computer program product claim of claim 32. Therefore, it is rejected for the same reasons as claim 32 above.

4. Claims 30, 38-39 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foley in view of Waldo and Bainbridge, and further in view of King U.S Patent No. 6,681,263.

As to claim 30, Foley as modified does not explicitly teach a garbage collector. King teaches a system of controlling the lifetime of an object (lines 53-58 column 2)

wherein a garbage collector is assigned to deletes an object is no longer being used by the client (the garbage collector examines objects to determine whether there are any remaining references from clients to that object; when all of those references have been released, the garbage collector deletes the object, lines 38-42 column 2). It would have been obvious to apply the teachings of King to the system of Foley as modified because by employing a garbage collector, the lifetime of the object could be closely monitored such as the garbage collector deletes the object when the object's lifetime is ended as disclosed by King (lines 38-42 column 2).

As to claim 38, it is a method claim of claim 30. Therefore, it is rejected for the same reasons as claim 30 above.

As to claim 39, it is a method claim of claim 30. Therefore, it is rejected for the same reasons as claim 30 above.

As to claim 43, it is a system claim of claims 8, 22 and 30. Therefore, it is rejected for the same reasons as claims 8, 22 and 30 above. Foley does not explicitly teach initializing garbage collection of the object upon expiration of the lease. Waldo teaches at the end of the lease period, allowing the garbage collection system to reclaim the resource (lines 61-64 column 4). Note the discussion of claim 1 above for the reason of combining references.

Response to Arguments

5. Applicant's arguments filed 9/21/2005 have been fully considered.

Applicant argued that Foley and Waldo reference does not teach limitations: "decorated with customized... activating a custom attribute based process" (Remarks, first complete paragraph page 12). In response, these new limitations are met by a new cited reference.

Applicant argued that there is no motivation cited from the prior arts (Remarks, last paragraph page 12). In response, the motivation was clearly cited from Waldo reference, as disclosed in the claim rejection above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy Ho whose telephone number is (571) 272-3762. A voice mail service is also available for this number. The examiner can normally be reached on Monday – Friday, 8:30 am – 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIM) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Art Unit: 2194

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Any response to this action should be mailed to:

Commissioner for Patents

P.O Box 1450

Alexandria, VA 22313-1450

Or fax to:

- AFTER-FINAL faxes must be signed and sent to (571) 273 - 8300.
- OFFICAL faxes must be signed and sent to (571) 273 - 8300.
- NON OFFICAL faxes should not be signed, please send to (571) 273 – 3762

A.H
December 6, 2005


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100